```
Set      Items   Description

S1     287665    S QT? ? OR Q()T OR QRST OR Q()R()S()T OR TWAVE OR T()(INTERVAL? ? OR
COMPLEX OR SEGMENT? ? OR WAVE OR WAVES) OR VENTRIC?(5N) (REPOLARIZ? OR RECOVER???) OR
(REFRACTORY OR VULNERABLE)()PERIOD OR (QRS OR Q()R()S)(5N)(ST OR S()T)

S2     167479    PREDICT? OR PARAMET? OR MATHEMATICAL? OR ANALY? OR EVALUAT? OR CALCULAT?
OR MEASUR? OR ESTIMAT? OR DETECT??? OR ANALY? OR QUANTIF? OR CORRELATION? ? OR EQUATION?
? OR QUOTIENT? ? OR NUMERICAL OR REGRESSION?? OR INDEX OR NOMOGRAM? OR ALGORIT

S3      64798    S S1(10N)S2

S4        219    S S3 FROM 347

S5         53    S IC=G06?

S6         72    S IC=A61?

S7         32    S S4 AND S5:S6

S8      64579    S S3 NOT S4

S9     126691    S HEART? ? OR CARDIO? OR CARDIA? OR ECG OR EKG OR ELECTROCARDIO? OR
MYOCARDI? OR AV()NODE? ? OR PURKINJE

S10     88456    S S1(20N)S9

S11     22915    S S10(50N)S8

S12    109475    S S9/TI,DE

S13     20725    S S11 AND S12

S14     10509    S S3/TI

S15      4101    S S13 AND S14

S16      1387    S S15/2004:2009

S17      2714    S S15 NOT S16

S18     79282    S METHOD? OR TECHNIQUE? OR PROCEDUR?

S19     26033    S S2(10N)S18

S20       647    S S19(50N)S17

S21       269    RD S20   (unique items)

S22     28408    S S18/DE

S23       140    S S21 AND S22

; show files
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[File 62] SPIN(R) 1975-2009/Nov W5

[File 71] ELSEVIER BIOBASE 1994-2008/DEC W3
File 71: The file has been reloaded. Accession numbers have changed.

[File 45] EMCare 2009/Dec W4

[File 136] BioEngineering Abstracts 1966-2007/Jan
File 136: This file is closed.

[File 5] Biosis Previews(R) 1926-2009/Jan W1

[File 155] MEDLINE(R) 1950-2008/Dec 10
File 155: Medline has temporarily ceased updating with UD20081210, in preparation for its annual reload.

[File 73] EMBASE 1974-2009/Jan 07

[File 35] Dissertation Abs Online 1861-2008/Nov

[File 65] Inside Conferences 1993-2009/Jan 06

[File 99] Wilson Appl. Sci & Tech Abs 1983-2008/Oct

[File 144] Pascal 1973-2008/Dec W2

[File 34] SciSearch(R) Cited Ref Sci 1990-2008/Dec W3

[File 434] SciSearch(R) Cited Ref Sci 1974-1989/Dec

[File 2] INSPEC 1898-2008/Nov W4

[File 6] NTIS 1964-2009/Jan W3

[File 8] Ei Compendex(R) 1884-2008/Dec W3

[File 239] Mathsci 1940-2008/Jan

[File 16] Gale Group PROMT(R) 1990-2009/Dec 19
File 16: Because of updating irregularities, the banner and the update (UD=) may vary.

[File 160] Gale Group PROMT(R) 1972-1989

[File 621] Gale Group New Prod.Annou.(R) 1985-2009/Dec 04

[File 9] Business & Industry(R) Jul/1994-2009/Jan 06

7/5/10 (Item 10 from file: 347)
   Fulltext available through: Order File History
JAPIO
07705840 **Image available**
METHOD AND APPARATUS FOR DYNAMICALLY SELECTING ELECTROCARDIOGRAM
COMPRESSION PROCESS BASED ON COMPUTERIZED ANALYSIS OF CARDIAC RHYTHM AND
CONTOUR

ABSTRACT

PROBLEM TO BE SOLVED: To automatically select a data compressing method for increasing the data storing and
data transmitting speed based on the data.

SOLUTION: The method 200 of automatically selecting a physiological data manipulation process is provided.
After raw data including an asynchronous component with diagnosis information as well as a synchronous
component are received 210, the asynchronous component is separated from the synchronous component 220. Based
on the condition of a signal produced in the analysis process 135, a data manipulation process 150 based on the
diagnosis information is automatically selected. As one mode of implementation, in selecting the physiological data
operating method, the tuning, for example, sinus rhythm, atrioventricular conduction, ventricular heart rate, P wave
amplitude, QT interval, and age quality identifier (qualifier) are analyzed, and the abnormal state is classified.

07681143 **Image available**

METHOD AND SYSTEM FOR MEASURING T-WAVE ALTERNANS BY ALIGNMENT OF ALTERNATING MEDIAN BEATS TO CUBIC SPLINE

Pub. No.: 2003-175008 [JP 2003175008 A]
Published: June 24, 2003 (20030624)
Inventor: KAISER WILLI
    FINDEIS MARTIN
Applicant: GE MEDICAL SYSTEMS INFORMATION TECHNOLOGIES INC
Application No.: 2002-291754 [JP 2002291754]
Filed: October 04, 2002 (20021004)
Priority: 01 682698 [US 2001682698], US (United States of America), October 05, 2001 (20011005)
International Class: A61B-005/0452

ABSTRACT

PROBLEM TO BE SOLVED: To provide an effective means for aligning odd-numbered heartbeats and even-numbered heartbeats for finding an exact TWA value in electrocardiogram (ECG) diagnosis.

SOLUTION: In an ECG processing method for measuring T-wave alternans by aligning alternating ECG signals to a target cubic spline (420, 435), the target cubic spline is calculated (405) on the basis of three isoelectric points, namely, a point before a P-wave, a point before a QRS-complex and a point after a T-wave (400). Next, the aligned signals are further analyzed concerning a fluctuation such as T- wave alternans existing only in alternating beats and having diagnostic significance (160).

7/5/12 (Item 12 from file: 347)
    Fulltext available through: Order File History
JAPIO
07355575 **Image available**
BODY SURFACE ADDED ELECTROCARDIOGRAM AUTOMATIC ANALYZER FOR DETERMINING ELECTROCARDIOGRAM T WAVE REPOLARIZATION ABNORMALITY

Pub. No.: 2002-224068 [JP 2002224068 A]
Published: August 13, 2002 (20020813)
Inventor: NAKAI KENJI
    SHOBUSAWA MINORU
    ITO CHUICHI
Applicant: JAPAN SCIENCE & TECHNOLOGY CORP
Application No.: 2001-030351 [JP 200130351]
Filed: February 07, 2001 (20010207)

International Class: A61B-005/0452

ABSTRACT

PROBLEM TO BE SOLVED: To provide a body surface average added electrocardiogram device capable of automatically analyzing abnormality of a T a wave for expressing a repolarization process being an index of serious illness arrhythmia on an electrocardiogram.

SOLUTION: This body surface added electrocardiogram automatic analyzer for determining electrocardiogram T wave repolarization abnormality is characterized by having an amplifying input means of an electrocardiogram signal led from an electrode installed on a living body, an analog digital converting means connected to the input means, and digitally converting an XYZ lead electrocardiogram, an R wave detecting means for detecting an R wave generating position of the XYZ lead electrocardiogram, an average adding means for adding on average in synchronism with an R wave position detected by the R wave detecting means 3, a storage means for storing an XYZ lead average added electrocardiogram determined by the average adding means, a ventricle delay potential analyzing means for analyzing ventricle delay potential on the basis of the XYZ average added lead electrocardiogram determined by the average adding means, an electrocardiogram T wave analyzing means for analyzing a T wave analyzing section automatically determined from an R wave detecting position, and an output means for outputting an analytical result.

BIOLOGICAL MAGNETIC FIELD MEASUREMENT DEVICE

ABSTRACT

PROBLEM TO BE SOLVED: To provide a biological magnetic field measurement device for easily confirming the T waves of a fetal magnetocardiogram.

SOLUTION: The normal components of a magnetic field generated from the heart are repeatedly detected for a plurality of channels. For the magnetic field waveform data of the respective channels, average magnetic field waveform data are obtained by performing the averaging processing of magnetic field waveforms in synchronism with R waves and the base lines of the average magnetic field waveform data of the respective channels are matched. Then, a pseudo current ($Ix=dBz/dy$, $Iy=-dBz/dx$) at the point of time after the lapse of predetermined time after the reference point of time of the average magnetic field waveform data is obtained for the respective channels. A current arrow map for which a vector is displayed by an arrow at (x, y) coordinates and the contour of the size of the pseudo current is overlapped with the (x, y) coordinates is obtained. The time of the peak of the R waves and the time within the time area in which the T waves appear are selected as the two points of time after the lapse of the predetermined time. The difference of the phase angle of a synthetic current vector obtained by vector-adding the pseudo currents of the respective channels at the two points of time is obtained and the current arrow map and the difference of the phase angle are displayed for each inspection object. Thus,

QT time or the like is easily measured.

7/5/15 (Item 15 from file: 347)
  Fulltext available through: Order File History
JAPIO
07274648 **Image available**
METHOD AND SYSTEM FOR STATISTICALLY ANALYZING QT INTERVAL AS FUNCTION OF CHANGE OF RR INTERVAL

ABSTRACT

PROBLEM TO BE SOLVED: To provide a system/method for analyzing a QT function statistically as the function of the change of an RR interval.

SOLUTION: In order to feature a QT response perfectly, the system/method uses three statistical comparisons: (1) the comparison of curves for giving entire influence, (2) the incidence rate of the point of exceeding one point predictional limit of upper 95% from the reference line of one point for reflecting the degree of ununiformity of

ventricular depolarization and (3) the size of these points for giving the quantitative evaluation of the change of QT-RR relation caused by processing. Data from mammals such as human beings, dogs, etc., and a pharmacological means using both of heat and non-heart curative medicine can be used with this multiple parameter statistic system/method. The coincidence rate and the size of a point existing on the outer side of the one point predictional limit of upper 95% of regression analysis for medium pair processing is determined.

7/5/16 (Item 16 from file: 347)
   Fulltext available through: Order File History
JAPIO
06851505 **Image available**
ULTRASONOGRAPH

Pub. No.: 2001-079006 [JP 2001079006 A]
Published: March 27, 2001 (20010327)
Inventor: HIGUCHI JIRO
Applicant: TOSHIBA CORP
Application No.: 11-258007 [JP 99258007]
Filed: September 10, 1999 (19990910)
International Class: A61B-008/14

ABSTRACT

PROBLEM TO BE SOLVED: To provide an ultrasonograph, wherein a temporal efficiency in the measuring operation of an electrocardiogram is favorable, the measuring operation can be easily performed, and the operability is favorable.

SOLUTION: This ultrasonograph is equipped with a T/R wave display location moving means, and the display trigger location of an electrocardiogram is detected by a reference signal detector. Then, the display trigger location is used as a measurement reference location, and a measurement cursor is displayed at the locations of the T wave/R wave. The measurement cursor can be displayed for both of them by switching. Also, the T wave/R wave are respectively displayed as a measurement cursor 4 for CH1 and a measurement cursor 5 for CH2, and both cursors can be moved to the measurement cursor 4 of CH1 (and the measurement cursor 5 of CH2).

7/5/17 (Item 17 from file: 347)
   Fulltext available through: Order File History
JAPIO

06781571 **Image available**
HEART STIMULATING DEVICE

Pub. No.: 2001-009047 [JP 2001009047 A]
Published: January 16, 2001 (20010116)
Inventor: KUNIYOSHI YUKIO
        ONO KOHEI
        IWANAGA YUHO
        AUCHI RYOTA
Applicant: KUNIYOSHI YUKIO
NIPPON KODEN CORP
Application No.: 11-189230 [JP 99189230]
Filed: July 02, 1999 (19990702)
International Class: A61N-001/362

ABSTRACT

PROBLEM TO BE SOLVED: To provide a heart stimulating device which arbitrarily suppresses cardiac beats and smoothly achieves the restoration thereof without excessively suppressing the heart function of a patient and without using a large amount of medicines in a heart surgical operation and contributes to a decrease in the patient's burden and an improvement in the accuracy of the operation as well as the reduction of medical treatment cost.

SOLUTION: This heart stimulating device has an electrocardiogram(ECG) detecting means 12 which detects the electric phenomena generated by the excitation of the cardiac muscles of the heart as an ECG, a heart stimulating means 14 for electrically stimulating the cardiac muscles of the heart, a refractory period measuring means which measures the refractory period of the cardiac muscles in accordance with the ECG waveform detected by the ECG detecting means and a refractory period stimulation signal output means which outputs the signal for stimulation by the heart stimulating means 14 within the refractory period measured by the refractory period measuring means.

7/5/18 (Item 18 from file: 347)
  Fulltext available through: Order File History
JAPIO
06377196 **Image available**
METHOD AND DEVICE FOR JUDGING T WAVE MARKER POINT DURING ANALYZING QT DISPERSION

Pub. No.: 11-318842 [JP 11318842 A]
Published: November 24, 1999 (19991124)
Inventor: CHIUJENU SHUE

SHANKARA REDEI
Applicant: MARQUETTE MEDICAL SYST INC
Application No.: 10-136588 [JP 98136588]
Filed: May 19, 1998 (19980519)
International Class: A61B-005/0452

ABSTRACT

PROBLEM TO BE SOLVED: To provide a method and device for analyzing QT dispersion in an ECG guiding signal.

SOLUTION: The method and device for analyzing QT dispersion in the ECG guiding signal obtains plural ECG guiding signals, filter-processes the signal (20), removes noise without distorting the form of a T wave, judges a T wave marker critical point to calculate QT dispersion and its pulse wave corrected value from a decided (22), (24) and (26) T wave marker. In addition, the device includes a processor programed to execute these functions.

7/5/23 (Item 23 from file: 347)
  Fulltext available through: Order File History
JAPIO
05101414 **Image available**
SYSTEM FOR ANALYZING ELECTROCARDIOGRAM

Pub. No.: 08-056914 [JP 8056914 A]
Published: March 05, 1996 (19960305)
Inventor: KANAZAWA MASAKI
Applicant: TOCHIGI NIPPON DENKI KK [000000] (A Japanese Company or Corporation), JP (Japan)
Application No.: 06-200382 [JP 94200382]
Filed: August 25, 1994 (19940825)
International Class: [6] A61B-005/0452; A61B-005/0428
JAPIO Class: 28.2 (SANITATION -- Medical)

ABSTRACT
PURPOSE: To effectively detect an artifact, to reduce a pseudo positive ratio in VPC detection and to improve global analysis accuracy in the VPC detecting processing of electrocardiogram analysis.

CONSTITUTION: This system is provided with a first calculation part 1 which calculates a morphological parameter for each heartbeat, a ring buffer manager 2 which registers past ten heartbeats on a ring buffer 8, a second calculation part 3 which calculates the mean value of the heartbeats in the ring buffer 8, a first decision part 4 which decides the possibility of the artifact from a change rate with the mean value, a third calculation part 5 which calculates the morphological parameter of a T wave, a second decision part 6 which decides he existence of the T wave from a calculated numeric value, and an analysis part 7 which analyzes an electrocardiogram from which the

artifact is removed.

7/5/24 (Item 24 from file: 347)
   Fulltext available through: Order File History
JAPIO
04663633 ATRIUM DEFIBRILLATION REMOVING EQUIPMENT AND METHOD TO PERFORM T
WAVE DETECTION BEFORE DEFIBRILLATION AND INTERVAL MEASUREMENT

Pub. No.: 06-335533 [JP 6335533 A]
Published: December 06, 1994 (19941206)
Inventor: KENISU ROSU INFUINGAA
         GUREGORII EMU AIAAZU
         DARERU OO WAGUNAA
         JIYON EMU ADAMUSU
Applicant: INKONTOROOLE INC [000000] (A Non-Japanese Company or Corporation), US (United States of America)
Application No.: 06-109607 [JP 94109607]
Filed: May 24, 1994 (19940524)
Priority: 7-67,688 [US 67688-1993], US (United States of America), May 26, 1993 (19930526)
International Class: [5] A61N-001/39; A61N-001/365
JAPIO Class: 28.2 (SANITATION -- Medical)
JAPIO Keyword: R131 (INFORMATION PROCESSING -- Microcomputers & Microprocessers)

7/5/25 (Item 25 from file: 347)
   Fulltext available through: Order File History
JAPIO
04655744 **Image available**
ANALYSIS DEVICE FOR ELECTROCARDIOGRAM INFORMATION

Pub. No.: 06-327644 [JP 6327644 A]
Published: November 29, 1994 (19941129)
Inventor: KANEKO MUTSUO
         SATO SHINJI
         NISHIMURA YUMI
         SAKAI MINAKO
         HIRANO KEIICHI
         HARA MASATOSHI
Applicant: FUKUDA DENSHI CO LTD [399831] (A Japanese Company or Corporation), JP (Japan)
Application No.: 05-116236 [JP 93116236]
Filed: May 18, 1993 (19930518)

International Class: [5] A61B-005/0452
JAPIO Class: 28.2 (SANITATION -- Medical)

ABSTRACT
PURPOSE: To enable an anlysis device for electrocardiograin information to easily and certainly judge on the variations of ST level of wave form in cardiogram whether they are brought about by the ischemia or the body locomotion.

CONSTITUTION: A control unit 11 fulfils function in an estimation of ST variation in terms of a calculation of the area under ST curve which is carried out a detecting circuit 17, where a judgment being made in pursuance of the mode of variation of ST area; a sudden variation is of the body locomotion while a slow one is brought about by the ischemia. In addition a device analyzes the information of cardiogram in the light of QRST diagram as well as heart rate.

7/5/26 (Item 26 from file: 347)
   Fulltext available through: Order File History
JAPIO
04655743 **Image available**

METHOD AND APPARATUS FOR DISPLAYING RESULT OF AUTO-ANALYSIS OF CARDIOGRAM

Pub. No.: 06-327643 [JP 6327643 A]
Published: November 29, 1994 (19941129)
Inventor: SHIMIZU SHIGERU
Applicant: NEC CORP [000423] (A Japanese Company or Corporation), JP (Japan)
Application No.: 05-121610 [JP 93121610]
Filed: May 24, 1993 (19930524)
International Class: [5] A61B-005/044; A61B-005/0452
JAPIO Class: 28.2 (SANITATION -- Medical)

ABSTRACT
PURPOSE: To realize an apparatus and method for grasping the abnormality in cardiogram exactly in the display or the record, regardless of the speciality knowledge, where the abnormality is possible to be found and estimated in the value form which are obtained from the categorized diagram data of digital signals.

CONSTITUTION: Heart signals from the terminals arranged on a limb and a breast are amplified by the cardiogram amplifier 1(sub 1)-1(sub 10), and are selected and output by means of a multi-plexer 2. An output signal from a multi-plexer 2 undergoes A/D (analog to digital) conversion by a converter 3, and is recorded in a main memory circuit 4. A memory circuit 4 records temporarily the standard-12-lead cardiogram converted by an inductive arithmetic unit 5, and a measuring unit 6 calculates the amplitude and the duration of P wave, QRS group, T wave etc., of each diagram. Further, a diagnostic unit plays a role of categorizing all of the information thus collected in conformity with the diagnostic program, and quantitating each of the abnormality in a judging unit 8 in order to output them to a display unit 9 and a recording unit 10.

7/5/30 (Item 30 from file: 347)
Fulltext available through: Order File History
JAPIO
03970935 **Image available**
RESPIRATORY WAVEFORM ESTIMATING METHOD EMPLOYING ELECTROCARDIOGRAM

ABSTRACT
PURPOSE: To improve precision during estimation of a respiratory waveform from an electrocardiogram and to relieve a burden on a person to be examined and to simplify a measuring system by changing a measuring electrocardiogram from two channels to one channel.

CONSTITUTION: Respiration is estimated by taking a change in an angle of a T-vector into consideration. A QRS vector and a T-vector are projected on one and the same axis to determine a projection axis for converting a change of an angle into a change of amplitude. The position of a breast part mounting electrode is decided along the projection axis and from the inside of the magnitude of the QRS wave and the T-wave of an electrocardiogram and the magnitude of an QRS wave or the magnitudes of the QRS wave and the T -wave, a respiratory curve is estimated.

23/3,K/2 (Item 2 from file: 71)
ELSEVIER BIOBASE
0003184934   Supplier Number: 1999185009
QT interval measurement: Q to T(Apex) or Q to T(End)?
Davey P.P.
Corresp. Author/Affil: Davey P.P., Dept. of Cardiovascular Medicine, John Radcliffe Hospital, Oxford OX3 9DU , United Kingdom

...though there is variation in the literature as to whether it is more appropriate to measure from the Q wave to the apex of the T wave, which is methodologically easy... ...interval to be used as a measure of repolarization, the variability of the Q-T interval should lie in this early phase. This should be true in health and in disease... ...the T(Apex-) T(End) interval, this should be reflected by the variability in the Q- T(Apex) interval. Methods. Fifty-six subjects were recruited: 24 with heart failure, 16 with left ventricular hypertrophy and 16 controls. Q-T(Apex), Q-T(End) and T(Apex)-T(End) intervals were measured at rest and on exercise. Results. Q-T(Apex) intervals at rest were not different amongst the three groups studied, being 339 +/- 7 ms for controls, 341 +/- 6 ms in left ventricular hypertrophy and 351 +/- 6 ms in heart failure. The Q-T(End) interval at rest was 421 +/- 6 ms in controls, 420 +/- 6 ms in hypertrophy...

Descriptors:
ECG methodology;

Evaluation of electrocardiogram T-wave dispersion measurement methods

 Lund K.; Lund B.; Brohet C.; Nygaard H.
 Department of Cardiology, Skejby University Hospital, Aarhus, Denmark
 AUTHOR EMAIL: kasparlund@bigfoot.com
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Evaluation of electrocardiogram T-wave dispersion measurement methods

  Methods for measuring the T-wave dispersion are difficult to improve, because the exact result is unknown. This study describes a flexible and cheap method for analysing the measurement problems. The analysis consisted of measuring the T-wave dispersion of electrocardiograms and vector loops with simulated dispersion. The vector loops... ...drawn from a population of 247 patients with acute myocardial infarction. The analysis of the

measurement problems was demonstrated by measuring an approximation to the classical QT-dispersion in ECGs with simulated dispersion in the interval 0-100 ms, in steps of 2ms. This showed that the QT-dispersion was unable to measure the simulated dispersion accurately in the clinically relevant interval of 50-100ms. The results indicated that the low prognostic accuracy of the QT-dispersion could be due to an inaccurate measurement method.
DESCRIPTORS:
*

acute heart infarction; adult; aged; analytic method; biomedical engineering; computer simulation; controlled study; defense mechanism; electrocardiogram; electrocardiography; human; major clinical study; mathematical computing; patient; population; prognosis; QT dispersion; QT interval; qualitative analysis; simulation; validation process
TERMS (UNCONTROLLED):

Predictive value of T-wave morphology variables and QT dispersion for postmyocardial infarction risk assessment

 Zabel M.; Malik M.
 Division of Cardiology, Benjamin Franklin Hospital, Free University of Berlin, Hindenburgdamm 30, 12200 Berlin, Germany
 CORRESP. AUTHOR/AFFIL: Zabel M.: Division of Cardiology, Benjamin Franklin Hospital, Free University of Berlin, Hindenburgdamm 30, 12200 Berlin, Germany
 CORRESP. AUTHOR EMAIL: mzabel@compuserve.com

   ...strata above and below the median confirmed the strong discrimination of risk by TCRT and T-wave loop dispersion values (P < .003 and P < .001). On Cox regression analysis entering other... ...reperfusion therapy, beta adrenergic blocker treatment, and SDNN from Holter, TCRT (P < .03) yielded independent predictive value while T-wave loop dispersion was of borderline independence (P = .064). Heart rate (P < .02), left ventricular ejection fraction (P < .02), and reperfusion therapy (P < .02) also... ...In contrast, none of the conventional variables of repolarization dispersion including QTd and rate-corrected QTd revealed prognostic value on univariate or Kaplan Meier analysis despite optimized digital processing techniques. Computerized analysis of T- wave loop morphology from the 12-lead resting ECG permits independent assessment of post-MI risk and should replace the poorly conceptualized measurement of QTd.
DESCRIPTORS:
*

...follow up; heart left ventricle ejection fraction; heart rate; hospital patient; human; independence; Kaplan Meier method; major clinical study; marker; model; patient; priority journal; processing; proportional hazards model; QT interval; regression...
TERMS (UNCONTROLLED):

23/3,K/7 (Item 5 from file: 45)
EMCare
0003408997   EMCARE No: 28099540
Agreement and reproducibility of automatic versus manual measurement of QT interval and QT dispersion

Savelieva I.; Gang Y.; Guo X.-H.; Hnatkova K.; Malik M.
Department of Cardiological Sciences, St. George's Hospital Medical School, London, United Kingdom
CORRESP. AUTHOR/AFFIL: Malik M.: Department of Cardiological Sciences, St. George's Hospital Medical School, Cranmer Terrace, London SW17 0RE, United Kingdom

DOCUMENT TYPE: Journal ; Article RECORD TYPE: Abstract
LANGUAGE: English   SUMMARY LANGUAGE: English
NUMBER OF REFERENCES: 27

To determine whether the automatic measurement of the QT interval is consistent with the manual measurement, this study evaluated the reproducibility... ...downslope with the isoelectric baseline. Manual measurements were obtained using a high-resolution digitizing board. QT dispersion was defined as the difference between the maximum and minimum QT interval and as standard deviations of the QT interval duration in all and precordial leads. In patients with hypertrophic cardiomyopathy, the absolute values of the QT interval and QT dispersion were significantly higher than those in normal subjects (p <0.0001). In both groups, the intrasubject variability of the QT interval was significantly lower with automatic than with manual measurement (p <0.05). The agreement between automatic and manual QT interval measurements was surprisingly poor, but it was better in patients with hypertrophic cardiomyopathy (r SUP 2 = 0.46 to 0.67) than in normal subjects (r SUP 2... ...the reproducibility and agreement of both methods for QT dispersion were significantly poorer than for QT interval. Hence, the automatic QT interval measurements are more stable and reproducible than manual measurement, but the lack of agreement between manual and automatic measurement suggests that clinical experience gained...
DESCRIPTORS:
*
adult; aged; analytic method; automation; controlled study; electrocardiogram; hospital patient; human; human cell; human experiment; human tissue; hypertrophic cardiomyopathy; male; normal human; patient; priority journal; regression analysis; T wave
TERMS (UNCONTROLLED):

23/3,K/12 (Item 2 from file: 136)
   Fulltext available through: STIC Full Text Retrieval Options
BioEngineering Abstracts
0000065447   IP Accession No: 323130
Computer detection of non-stationary T wave alternans using a new correlation method

Burattini, L; Zareba, W; Couderc, JP; Titlebaum, EL; Moss, AJ Univ of Rochester, Rochester, NY, USA
COMPUT CARDIOL , p 657-660 , 1997
Publication Date: 1997
Publisher: IEEE COMP SOC, LOS ALAMITOS, CA, (USA)

Conference:
The 1997 24th Annual Meeting on Computers in Cardiology, Lund, Sweden, 09/07-10/97

Document Type: Book Monograph; Conference
Record Type: Abstract
Language: English
ISSN: 0276-6574
File Segment: BioEngineering Abstracts
Computer detection of non-stationary T wave alternans using a new correlation method

Abstract:
Detection of microvolt T wave alternans (TWA) is a non-invasive method to identify patients at risk for sudden cardiac death. ECGs show that visible TWA is often non-stationary. Thus, we developed a new correlation method (CM) for TWA detection, and we tested CM's ability to detect non-stationary TWA in comparison with accepted spectral method (SM). In a simulation study CM and SM were used to evaluate stationary and non...

Descriptors: Correlation methods; Electrocardiography; Computer simulation; Spurious signal noise; Synchronization; Amplitude modulation ; Signal filtering and prediction; Spectrum analysis; Noninvasive medical procedures
Identifiers:

23/3,K/13 (Item 1 from file: 5)
   Fulltext available through: STIC Full Text Retrieval Options
Biosis Previews(R)
17815768   Biosis No.: 200400183454
Development of a new QT algorithm with heterogeneous ECG databases.

Author: Schreier Gunter (Reprint); Hayn Dieter; Lobodzinski Suave
Author Address: Biosignal Processing and Telemedicine, ARC Seibersdorf research GmbH, Grottenhofstrasse 3, 8053, Graz, Austria**Austria
Author E-mail Address: guenter.schreier@arcs.ac.at

Journal: Journal of Electrocardiology 36 (Supplement): p 145-150 2003 2003
Medium: print
Conference/Meeting: Proceedings of the 28th Annual ISCE (International Society for Computerized
Electrocardiology) Conference on Research and Technology Transfer in Computerized Electrocardiology
Snowbird, UT, USA April 26-May 01, 2003; 20030426
Sponsor: International Society for Computerized Electrocardiology
ISSN: 0022-0736
Document Type: Meeting; Meeting Abstract
Record Type: Citation
Language: English
DESCRIPTORS:
Methods & Equipment: ...mathematical and computer techniques; ... ...mathematical and computer techniques;
... ...electrocardiogram--... ...clinical techniques, diagnostic techniques
 Geographical Name:

23/3,K/21 (Item 9 from file: 5)
  Fulltext available through: STIC Full Text Retrieval Options
Biosis Previews(R)
17128389 Biosis No.: 200300087108
A method for analyzing QT-RR relation from Holter ECG recordings.

Author: Vaananen H (Reprint); Oikarinen L; Viitasalo L Toivonen M
Author Address: Helsinki University of Technology, Espoo, Finland**Finland
Journal: Journal of Electrocardiology 35 (Supplement): p 178 2002 2002
Medium: print
Conference/Meeting: 27th Annual Conference of the International Society for Computerized Electrocardiology on
Research and Technology Transfer in Computerized Electrocardiology Doorwerth, Netherlands April 20-25,
2002; 20020420
ISSN: 0022-0736
Document Type: Meeting; Meeting Abstract
Record Type: Citation
Language: English
A method for analyzing QT-RR relation from Holter ECG recordings.

DESCRIPTORS:
Major Concepts: Methods and Techniques
Biosystematic Names:
Methods & Equipment: ...clinical techniques; ... ...mathematical and computer techniques; ... ...mathematical and
computer techniques
 Geographical Name:

23/3,K/22 (Item 10 from file: 5)
  Fulltext available through: STIC Full Text Retrieval Options

17057382   Biosis No.: 200300016101
A wavelet transform based approach in measuring QT interval of ECG.

Author: Chen Chunxiao (Reprint); Heng Tong; Liu Jianye
Author Address: Department of Biomedical Engineering, Nanjing University of Aeronautics and Astronautics, Nanjing, 210016, China**China

Abstract: Objective To acquire accurate parameters of QT interval of ECG signal. Methods The ECG signal is decomposed in multi-scales... ...signals with different frequencies were showed in different scales. The onsets of QRS wave and T wave was identified in the characteristic scales to provide accurate parameters of the QT interval. Results (1) Precise ECG wave was reconstructed by binary wavelets through adding of 1mV error signal to 2mV ECG signal. The maximal errors of the QRS wave, P wave, and T wave were 5.75%, 5.2%, and 3.8% respectively. (2) The averages and standard deviations derived from the ECG signal of MIT/BIH disposed by wavelets reflected the stabilities of QT and other intervals. Conclusion The ECG signals are obviously unbalanced and contain many noises in the process of detecting. The QT interval can be captured perfectly by wavelets decomposed ECG signals, which provides more accurate diagnostic information for medical practice.
DESCRIPTORS:
Major Concepts: ...Methods and Techniques
Biosystematic Names:
Methods & Equipment: ...clinical techniques, diagnostic techniques
 Geographical Name:

23/3,K/27 (Item 15 from file: 5)
  Fulltext available through: STIC Full Text Retrieval Options

16799437   Biosis No.: 200200392948
In vivo measurement of QT prolongation, dispersion and arrhythmogenesis: Application to the preclinical cardiovascular safety pharmacology of a new chemical entity

Author: De Clerck Fred (Reprint); Van de Water Andre; D'Aubioul Jan; Lu Hua Rong; Van Rossem Koen; Hermans An; Van Ammel Karel
Author Address: Center of Excellence for Cardiovascular Safety Research, Janssen Research Foundation, Turnhoutseweg 30, B-2340, Beerse, Belgium**Belgium

Document Type: Article
Record Type: Abstract
Language: English
DESCRIPTORS:
Major Concepts: ...Methods and Techniques;
Biosystematic Names:
Methods & Equipment: ECG {electrocardiography}--... ...measurement method; ... ...mathematical method; ...
...cardiac electrophysiology... ...assessment method; ... ...measurement method
 Geographical Name:

23/3,K/31 (Item 19 from file: 5)
   Fulltext available through: STIC Full Text Retrieval Options
Biosis Previews(R)
16650740   Biosis No.: 200200244251
Two methods for calculating the normal QT interval at a given heart rate, with greater accuracy and
simplicity than Bazett's formula

Author: Yang Scott H (Reprint)
Author Address: Department of Medicine, University of Washington, Seattle, WA, USA**USA
Journal: Journal of Investigative Medicine   50 (1): p 68A January, 2002 2002
Medium: print
Conference/Meeting: Meeting of the American Federation for Medical Research, Western Region   Carmel,
California, USA   February 06-09, 2002; 20020206
Sponsor: American Federation for Medical Research, Western Region
ISSN: 1081-5589
Document Type: Meeting; Meeting Abstract
Record Type: Citation
Language: English
Two methods for calculating the normal QT interval at a given heart rate, with greater accuracy and
simplicity than Bazett's formula

DESCRIPTORS:
Major Concepts: ...Methods and Techniques
Biosystematic Names:
Methods & Equipment: ...accuracy, comparison, measurement method, simplicity... ...physiological method; ...
...normal QT interval calculation methods

--... ...accuracy, comparison, measurement method, simplicity
 Geographical Name:

23/3,K/32 (Item 20 from file: 5)
   Fulltext available through: STIC Full Text Retrieval Options
Biosis Previews(R)

16622767   Biosis No.: 200200216278
A simple method for evaluating abnormal lengthening of the QT interval during the face immersion test

Author: Kamimura J; Yoshinaga M (Reprint); Kono Y; Yanagi S; Nishi J; Nomura Y; Fukushige T; Kusubae R; Shinkura R; Miyata K
Author Address: Department of Pediatrics, Faculty of Medicine, Kagoshima University, Sakuragaoka 8-35-1, Kagoshima, 890-8520, Japan**Japan
Document Type: Article
Record Type: Abstract
Language: English
A simple method for evaluating abnormal lengthening of the QT interval during the face immersion test

DESCRIPTORS:
Methods & Equipment: ...mathematical method; ... ...assessment method
 Geographical Name:

23/3,K/33 (Item 21 from file: 5)
   Fulltext available through: STIC Full Text Retrieval Options
Biosis Previews(R)
16589435   Biosis No.: 200200182946
Usefulness of QT dispersion as an electrocardiographically derived index

Author: Somberg John C (Reprint); Molnar Janos
Author Address: American Institute of Therapeutics, 21 North Skokie Valley Hwy., Suite G-3, Lake Bluff, IL, 60044, USA**USA
Document Type: Article
Record Type: Citation
Language: English
DESCRIPTORS:
Major Concepts: ...Methods and Techniques
Biosystematic Names:
Methods & Equipment: electrocardiography--... ...analytical method
 Geographical Name:

23/3,K/53 (Item 41 from file: 5)
   Fulltext available through: STIC Full Text Retrieval Options

15724199   Biosis No.: 200000442512
Analysis of 12-lead T-wave morphology for risk stratification after myocardial infarction

Author: Zabel Markus; Acar Burak; Klingenheben Thomas; Franz Michael R; Hohnloser Stefan H; Malik Marek (Reprint)
Author Address: Cardiological Sciences, St George's Hospital Medical School, London, SW17 0RE, UK**UK
DESCRIPTORS:
Major Concepts: ...Methods and Techniques
Biosystematic Names:
Methods & Equipment: 12-lead electrocardiography--... ...evaluation method, imaging method
 Geographical Name:

23/3,K/69 (Item 57 from file: 5)
   Fulltext available through: STIC Full Text Retrieval Options
15211413   Biosis No.: 199900471073
QT dispersion as a predictor of long-term mortality in patients with acute myocardial infarction and clinical evidence of heart failure

Author: Spargias K S; Lindsay S J; Kawar G I; Greenwood D C; Cowan J C; Ball S G; Hall A S (Reprint)
Author Address: Institute for Cardiovascular Research, University of Leeds, Leeds, LS2 9JT, UK**UK

Abstract: Background QT interval dispersion is a marker of inhomogeneous ventricular repolarization, and therefore has the potential to predict re-entry arrhythmias. Following acute myocardial infarction, increased QT dispersion has been associated with a higher risk of ventricular arrhythmias. However, whether or not QT dispersion predicts prognosis post-acute myocardial infarction is not clear. We addressed this issue by analysing the AIREX study registry. Methods AIREX was a follow-up study of 603 post-acute myocardial infarction patients who exhibited...
DESCRIPTORS:
Methods & Equipment: ...diagnostic method

Geographical Name:

23/3,K/73 (Item 61 from file: 5)
   Fulltext available through: STIC Full Text Retrieval Options
Biosis Previews(R)
14817227   Biosis No.: 199900076887
QT interval dispersion as a predictor of arrhythmic events in congestive heart failure: Importance of aetiology

Author: Galinier M (Reprint); Vialette J-C; Fourcade J; Cabrol P; Dongay B; Massabuau P; Boveda S; Doazan J-P; Fauvel J-M; Bounhoure J-P
Author Address: Cardiol. Dep., Rangueil Univ. Hosp., 1 av. Jean Poulhes, 31403 Toulouse Cedex, France**France
Document Type: Article
Record Type: Abstract
Language: English

Abstract: Aims: Identification of patients with congestive heart failure at risk of sudden death remains problematic and few data are available on the prognostic implications of QT dispersion. We sought to assess the predictive value of QT dispersion for arrhythmic events in heart failure secondary to dilated cardiomyopathy or ischaemic heart disease. Methods and Results: Twelve-lead ECGs calculated for QT dispersion, 24 h Holter ECGs and signal-averaged ECGs were prospectively recorded in 205 heart failure patients in sinus rhythm. The 86 patients with ischaemic heart disease and the 119... ...were not significantly different as regards NYHA grades (51 vs 49% in grades III-IV), cardiothoracic ratio (57 +- 7 vs 57 +- 6%) and ejection fraction (28 +- 8 vs 29 +- 9%). The mean QT dispersion (66 +- 29 vs 65 +- 27 ms), the frequency of non-sustained ventricular tachycardia (37...
DESCRIPTORS:
Methods & Equipment: ...diagnostic method
 Geographical Name:

23/3,K/86 (Item 74 from file: 5)
   Fulltext available through: STIC Full Text Retrieval Options
Biosis Previews(R)
12934742   Biosis No.: 199598402575
Comparison of automatic QT measurement techniques in the normal 12 lead electrocardiogram

Author: McLaughlin Neil B (Reprint); Campbell Ronald W F; Murray Alan
Author Address: Regional Med. Physics Dep., Freeman Hosp., Newcastle upon Tyne NE7 7DN, UK **UK
Document Type: Article

Comparison of automatic QT measurement techniques in the normal 12 lead electrocardiogram

Abstract: Objective: To undertake a quantitative assessment of different automatic QT measurement techniques and investigate the influence of electrocardiogram filtering and algorithm parameters. Design: Four methods for identifying the end of the T wave were compared: (1) threshold crossing of the... ...the peak and the point of maximum slope of the T wave (PSI). Automatic QT measurements were made by all techniques following different electrocardiogram filtering and, when appropriate, with four different isoelectric levels and with three... ...position. Main outcome measure: Mean and standard deviation of differences between reference and automatic QT measurements were compared for the four techniques. Results: The mean automatic QT measurements varied by up to 62 ms, which was greater than has been found between manual measurements by experienced clinicians. Technique TH was particularly poor. The other techniques produced consistent results for most electrocardiogram filter, isoelectric level, and threshold level settings; but technique SI underestimated QT relative to the other techniques. Conclusion: Different QT measurement techniques produced results which were influenced, to varying degrees, by filtering and technique variables. This is...
DESCRIPTORS:
 Miscellaneous Terms: Concept Codes: ...METHODS COMPARISON

23/3,K/89 (Item 77 from file: 5)
   Fulltext available through: STIC Full Text Retrieval Options
11980398 Biosis No.: 199497001683
Automated measurement of QT interval dispersion from hard-copy ECGs

Author: Bhullar Harsangeet K; Fothergill John C; Goddard William P; De Bono David P (Reprint)
Author Address: Dep. Cardiol., Clinical Sci. Wing, Glenfield General Hospital, Leicester LE3 9QP, UK**UK

Abstract: Increased "dispersion" of the QT interval of the electrocardiogram has been proposed as a marker for increased risk of cardiac arrhythmias, but definitive identification of its independent predictive value requires accurate and reproducible measurement in large numbers of cases. A personal computer-base technique for (1) converting hard-copy electrocardiograms to digital records and (2) automatically measuring QT interval dispersion from the digitized records has been developed and validated. Hand measurements of the RR interval for the original tracing and cursor or automated measurements from digitized waveforms correlated to within 1%. QT intervals measured by cursor on digitized waveforms were a mean of 14 ms (95% confidence interval, 10...
DESCRIPTORS:
 Miscellaneous Terms: Concept Codes: ...UNIQUE COMPUTER METHOD

23/3,K/102 (Item 7 from file: 155)
   Fulltext available through: STIC Full Text Retrieval Options
MEDLINE(R)
13549133 PMID: 10768311
Measurement and interpretation of QT dispersion.

Batchvarov V; Malik M
Department of Cardiological Sciences, St. George's Hospital Medical School, London, United Kingdom.
Progress in cardiovascular diseases (UNITED STATES) Mar-Apr 2000 , 42 (5) p325-44 , ISSN: 0033-0620--
Print Journal Code: 0376442
Publishing Model Print
Document type: Comparative Study; Journal Article; Review
Languages: ENGLISH
Main Citation Owner:

NLM
Record type: MEDLINE; Completed
Descriptors: ; Electrocardiography--instrumentation--IS; Electrocardiography--methods--MT;
Electrocardiography --statistics and numerical data--SN; Electrodes; Electrophysiology; Heart Ventricles--
physiology--PH; Humans; Reproducibility of Results
Named Person:

23/3,K/108 (Item 13 from file: 155)
   Fulltext available through: STIC Full Text Retrieval Options
MEDLINE(R)
08049108 PMID: 3761815
[Method of determining and evaluating the normal values of the ECG Q--T interval]

O metodike opredeleniia i otsenki normal'nykh velichin intervala Q--T EKG.
Postnikov A T
Kardiologiia (USSR) Jun 1986 , 26 (6) p96-7 , ISSN: 0022-9040--Print Journal Code: 0376351
Publishing Model Print
Document type: Comparative Study; Journal Article
Languages: RUSSIAN
Main Citation Owner: NLM
Record type: MEDLINE; Completed
[Method of determining and evaluating the normal values of the ECG Q--T interval]

Descriptors: *Electrocardiography--methods--MT

23/3,K/111 (Item 1 from file: 73)
   Fulltext available through: STIC Full Text Retrieval Options
EMBASE

0079501742   EMBASE No: 2003207600
 A maximum likelihood approach for estimating the QT correction factor using mixed effects model

Shah A.; Hajian G.
 Schering-Plough Research Institute, 2015 Galloping Hill Road, Kenilworth, NJ 07033, United States
 Author email: amrik.shah@spcorp.com
 Corresp. Author/Affil: Shah A.: Schering-Plough Research Institute, 2015 Galloping Hill Road, Kenilworth, NJ 07033, United States
 Corresp. Author Email: amrik.shah@spcorp.com

 Document Type: Journal ; Article Record Type: Abstract
 Language: English Summary language: English
 Number of References: 9
Medical Descriptors:
* data analysis; *long QT syndrome--side effect--si; *maximum likelihood method
article; clinical trial; crossover procedure; drug induced disease --side effect--si; electrocardiogram; heart rate; human; methodology; multiple drug dose; QT interval; randomization; sensitivity analysis; statistical model
Orig. Descriptors:

23/3,K/114 (Item 4 from file: 73)
   Fulltext available through: STIC Full Text Retrieval Options
EMBASE
0074164177   EMBASE No: 1990058176
 Hyperacute T-wave criteria using computer ECG analysis

Collins M.S.; Carter J.E.; Dougherty J.M.; Majercik S.M.; Hodsden J.E.; Logue E.E.
 Department of Emergency Medicine, Akron General Medical Center, Northeastern Ohio Universitiees College of Medicine, Akron, OH, United States
 Corresp. Author/Affil: Collins M.S.: Trauma and Emergency Center, Gunderson Clinic, Ltd., 1836 South Avenue, LaCrosse, WI 54601, United States

 Document Type: Journal ; Article Record Type: Abstract
 Language: English Summary language: English
Medical Descriptors:
*
anemia; article; computer analysis; heart infarction; human; major clinical study; methodology; priority journal; t wave
Orig. Descriptors:

23/3,K/115 (Item 5 from file: 73)
   Fulltext available through: STIC Full Text Retrieval Options
0072243528   EMBASE No: 1982048146
  QT interval measurement by a computer assisted program: A potentially useful clinical parameter

Puddu P.E.; Bernard P.M.; Chaitman B.R.; Bourassa M.G.
 Montreal Heart Inst., Montreal, Que. H1T 1C8, Canada
Corresp. Author/Affil: : Montreal Heart Inst., Montreal, Que. H1T 1C8, Canada

Medical Descriptors:
*

computer analysis; computer program; diagnosis; heart; major clinical study; methodology; qt interval
Orig. Descriptors:

23/3,K/117 (Item 7 from file: 73)
   Fulltext available through: STIC Full Text Retrieval Options
0070633296   EMBASE No: 1976200425
  Study of informativeness of functional tests for identification of ECG T waves (with mathematical methods employed) (Russian)

Khanina S.B.; Getman N.A.
 Klin. Bol'n. VI, Min. Zdravookhr. SSSR, Moscow, U.S.S.R.
Corresp. Author/Affil: : Klin. Bol'n. VI, Min. Zdravookhr. SSSR, Moscow, U.S.S.R.

 Study of informativeness of functional tests for identification of ECG T waves (with mathematical methods employed) (Russian)

Medical Descriptors:
*
etiology; methodology
Orig. Descriptors:

23/3,K/118 (Item 1 from file: 144)
Pascal

   16038018   PASCAL No.: 03-0185905

   Nonlinear measures of QT interval series: novel indices of cardiac
repolarization lability: MEDqthr and LLEqthr

   VIKRAM KUMAR YERAGANI; RADHAKRISHNA RAO K A
   Department of Psychiatry, Wayne State University School of Medicine,
Detroit, MI, United States; Department of ECE, Indian Institute of Science,
Bangalore, India

   Language: English

English Descriptors: Panic; Posture; Comparative study; Depression;
   Evaluation; Time series; Electrocardiography; Heart
   rate; QT interval; Hemodynamics; Spectral analysis;
   Chaos; Autonomic nervous system; Methodology; Human

French Descriptors: Panique; Posture; Etude comparative; Etat depressif;
   Evaluation; Serie temporelle; Electrocardiographie; Rythme
   cardiaque; Intervalle QT; Hemodynamique; Analyse
   spectrale; Chaos; Systeme nerveux autonome; Methodologie; Homme

23/3,K/119 (Item 2 from file: 144)
Pascal

   15897381   PASCAL No.: 03-0036023

   Computer-based analysis of dynamic QT changes: Toward high precision and
individual rate correction

   DOTA Corina; SKALLEFELL Bo; EDVARDSSON Nils; FAGER Gunnar

Department of Experimental Medicine, AstraZeneca R & D Moelndal,
Moelndal, Sweden; Division of Heart and Lung Diseases, Sahlgrenska
University Hospital, Goeteborg, Sweden; IRKS AB, Moelndal, Sweden
   Journal: Annals of noninvasive electrocardiology
, 2002, 7 (4
) 289-301
   Language: English

English Descriptors: Electrocardiography; QT interval;
   Automatic measurement; Computer aid; Exploration; Technique
   ; Human

French Descriptors: Electrocardiographie; Intervalle QT; Mesure automatique
   ; Assistance ordinateur; Exploration; Technique; Homme

23/3,K/126 (Item 9 from file: 144)
Pascal

   13833583   PASCAL No.: 99-0009487

   Computerised measurements of QT dispersion in healthy subjects

   GANG Y; GUO X H; CROOK R; HNATKOVA K; CAMM A J; MALIK M

   Department of Cardiological Sciences, St George's Hospital Medical
School, Cranmer Terrace, London SW17 0RE, United Kingdom
   Journal: Heart : (London 1996), 1998
, 80 (5) 459-466

   Language: English

English Descriptors: Electrocardiography; Dispersion; Computerized
   processing; QT interval; Reproducibility; Measurement
   method; Human; Exploration; Posture; Respiration
French Descriptors: Electrocardiographie; Dispersion; Traitement

informatique; Intervalle QT; Reproductibilite; Methode mesure;
  Homme; Exploration; Posture; Respiration

23/3,K/127 (Item 10 from file: 144)
Pascal

   13687323   PASCAL No.: 98-0396196

  Mathematic validation of a shorthand rule for calculating QT SUB c

  PHOON C K L
  Division of Pediatric Cardiology, New York University Medical Center, New
York, New York, United States
  Journal: The American journal of cardiology,
1998, 82 (3)
400-402
  Language: English

English Descriptors: Electrocardiography; QT interval;
  Corrections; Mathematical method; Exploration;
  Technique; Human
French Descriptors: Electrocardiographie; Intervalle QT; Correction;
  Methode mathematique; Exploration; Technique; Homme

23/3,K/128 (Item 11 from file: 144)
Pascal

   13507483   PASCAL No.: 98-0205875

  Measurement of heart rate and Q-T interval in the conscious mouse

  MITCHELL G F; JERON A; KOREN G
  Cardiovascular Division, Department of Medicine, Brigham and Women's
Hospital, Harvard Medical School, Boston, Massachusetts 02115, United
States
  Journal: American journal of physiology. Heart and

circulatory physiology, 1998, 43
(3) H747-H751
  Language: English

English Descriptors: Heart; Heart rate; QT interval;
  RR interval; Measurement method; Electrocardiography
  ; Mouse; Transgenic animal
French Descriptors: Coeur; Rythme cardiaque; Intervalle QT; Intervalle RR;
  Methode mesure; Electrocardiographie; Souris; Animal transgenique

23/3,K/130 (Item 13 from file: 144)
Pascal

   12823858   PASCAL No.: 97-0040583

   Accuracy of four automatic QT measurement techniques
in cardiac patients and healthy subjects

   LAUGHLIN N B; CAMPBELL R W F; MURRAY A
   Regional Medical Physics Department, Freeman Hospital, Newcastle upon
Tyne, United Kingdom; Academic Cardiology Unit, Freeman Hospital, Newcastle
upon Tyne, United Kingdom
   Journal: Heart : (London 1996), 1996
, 76 (5) 422-426

   Language: English

   Accuracy of four automatic QT measurement techniques
in cardiac patients and healthy subjects
   Objective-To assess differences in the accuracy of automatic QT
measurement in three subject groups, and to determine the influence of T
wave amplitude on...

... for the cardiac patients compared with the controls (P < 0.01). No
simple relation between T wave amplitude and the difference

between automatic and manual QT measurements was found,
although the difference was 2.2 times greater for absolute T
wave amplitudes of less than 0.25 mV (P < 0.001).
Conclusions-Automatic QT measurement techniques are less
accurate in cardiac patients than in controls. Measurements
from T waves with amplitudes less than 0.25 mV are less
reliable.

English Descriptors: Electrocardiography; QT interval;
  Automatic measurement; Exploration; Technique; Human

French Descriptors: Electrocardiographie; Intervalle QT; Mesure automatique
  ; Exploration; Technique; Homme

23/3,K/131 (Item 14 from file: 144)
Pascal

   11694280   PASCAL No.: 94-0556418

   Time for yet another QT correction algorithm ? Bazett and beyond

   FRANZ M R
   Georgetown univ. medical school, div. cardiology, Washington DC, USA
   Journal: Journal of the American College of Cardiology
, 1994, 23 (7
) 1554-1556
   Language: English

English Descriptors: QT interval; Algorithm; Corrections;
  Heart rate; Human; Method; Critical study

French Descriptors: Intervalle QT; Algorithme; Correction;
  Rythme cardiaque; Homme; Methode; Etude critique

23/3,K/133 (Item 16 from file: 144)
Pascal

   11138699   PASCAL No.: 93-0646829

How to measure the QT interval : what is normal ?
QTc interval prolongation : is it beneficial or harmful ?

GARSON A JR
MORGANROTH Joel, ed
Duke univ. medical cent., div. pediatric cardiology, Durham NC, USA
Univ. Pennsylvania school medicine, Philadelphia PA, USA
Symposium on new drugs and devices. Annual meeting (Philadelphia PA USA)
1992-10-29
Journal: The American journal of cardiology,
1993, 72 (6)
14B-16B
Language: English

English Descriptors: QT interval; Sick sinus syndrome; Human;
  Measurement; Measurement method; Diagnosis;
  Repolarization; Electrocardiography; Electrodiagnosis; Exploration

French Descriptors: Intervalle QT; Anomalie rythme sinusal; Homme; Mesure;
  Methode mesure; Diagnostic; Repolarisation; Electrocardiographie;
  Electrodiagnostic; Exploration

23/3,K/134 (Item 1 from file: 2)
INSPEC
08253616 INSPEC Abstract Number: A2002-11-8770F-042, B2002-06-7510D-019, C2002-06-7330-080
Title: The new, non-rate-dependent algorithm of T-wave identification for time-domain analysis of T wave alternans in high resolution ECG
Author Janusek, D.; Karumarewicz, S.; Buczkowski, T.
Author Affiliation: Inst. of Radioelectron., Warsaw Univ. of Technol., Poland
Conference Title: Experience of Designing and Applications of CAD Systems in Microelectronics. Proceedings of the VI-th International Conference. CADSM 2001 (IEEE Cat. No.01 EX473)   p. 85-7
Publisher: Lviv Polytechnic Nat. Univ , Lviv, Ukraine
Publication Date: 2001 Country of Publication: Ukraine   312 pp.
ISBN: 966 553 079 8   Material Identity Number: XX-2002-00042
Conference Title: Experience of Designing and Application of CAD Systems in Microelectronics. Proceedings of the VI-th International Conference. CADSM 2001
Conference Sponsor: IEEE Electron Devices Soc.; West Ukraine Chapter of IEEE AP/MTT/ED/CPMT/SSC
Conference Date: 12-17 Feb. 2001   Conference Location: Lviv-Slavsko, Ukraine
Language: English
 Subfile: A B C

Abstract: In this paper the new method of time domain repolarization alternans detection was developed. This is fully heart rate independent algorithm based on original T-wave identification method. Both algorithms have been tested and results have been compared with the spectral method.
Descriptors: ...smoothing methods;
Identifiers:

23/3,K/135 (Item 2 from file: 2)
INSPEC
07314077 INSPEC Abstract Number: A1999-17-8770F-048, B1999-09-7510D-086, C1999-09-7330-160
Title: QT measurement for TU fused ECG morphology as exhibited during hypoglycaemia
Author Ireland, R.H.; Robinson, R.T.C.E.; Heller, S.R.; Harris, N.D.
Author Affiliation: Dept. of Med. Phys. & Clinical Eng., R. Hallamshire Hosp., Sheffield, UK
Conference Title: Proceedings of the 20th Annual International Conference of the IEEE Engineering in Medicine and Biology Society. Vol.20 Biomedical Engineering Towards the Year 2000 and Beyond (Cat. No.98CH36286) Part vol.1   p. 240-2 vol.1
Editor(s): Chang, H.K.; Zhang, Y.T.
Publisher: IEEE , Piscataway, NJ, USA
Publication Date: 1998 Country of Publication: USA   6 vol. xviii+xix+3384 pp.
ISBN: 0 7803 5164 9   Material Identity Number: XX-1999-00301
U.S. Copyright Clearance Center Code: 0 7803 5164 9/98/$10.00
Conference Title: Proceedings of the 20th Annual International Conference of the IEEE Engineering in Medicine and Biology Society. Vol.20 Biomedical Engineering Towards the Year 2000 and Beyond
Conference Sponsor: Biomed. Div. Hong Kong Inst. Eng.; Chinese Biomed. Eng. Soc
Conference Date: 29 Oct.-1 Nov. 1998   Conference Location: Hong Kong, China
Language: English
 Subfile: A B C
Abstract: During hypoglycaemia, there is typically a change in the ECG characterised by a flattened and prolonged T wave, often accompanied by a fused U wave. In the presence of such U waves, there is no widely accepted method of measuring the QT interval. This study compares two possible methods: using the intersection of the isoelectric line and (1) the T wave, and (2) a tangent to the T wave. The methods were tested on 306 sets of high resolution ECG data recorded during hyperinsulinaemic hypoglycaemic clamp studies. A value of measurement subjectivity was also recorded for each measurement. Results show that the tangent method is more consistent and reproducible than the non-tangent method. Further, the non-tangent method...
Descriptors: ...gradient methods;
Identifiers:

23/3,K/137 (Item 2 from file: 8)
Ei Compendex(R)
0014819542   E.I. COMPENDEX No: 2001266563301
Real-time QT interval measurement

Gonzalez, R.; Fernandez, R.; del Carmen Raola, M.
 Corresp. Author/Affil: Gonzalez, R.: Department of Medical Devices, Central Institute for Digital Res., Calle 202 entre 17 y 19, Playa, Hawana, Cuba
 Corresp. Author email: rene@cop.icid.edu.cu

23/3,K/138 (Item 3 from file: 8)
0014747052   E.I. COMPENDEX No: 2001115515673
Comparison of three measures of QT dispersion

Langley, Philip; Di Bernardo, D.; Murray, A.
 Corresp. Author/Affil: Langley, P.: Freeman Hospital, Newcastle upon Tyne, United Kingdom

23/3,K/139 (Item 4 from file: 8)
0014494759   E.I. COMPENDEX No: 2000094974154
Automated QRST subtraction algorithm for analysis of T wave obscured ectopic atrial beats

Mlynash, M.; SippensGroenewegen, A.; Roithinger, F.; Goseki, Y.; Steiner, P.; Lesh, M.
 Corresp. Author/Affil: Mlynash, M.: Univ of California San Francisco, San Francisco, United States
 Conference Title: Proceedings of the 1999 IEEE Engineering in Medicine and Biology 21st Annual Conference
and the 1999 Fall Meeting of the Biomedical Engineering Society (1st Joint BMES / EMBS)
 Conference Location: Atlanta, GA, USA   Conference Date: 19991013-19991016
 E.I. Conference No.: 56236
 Annual International Conference of the IEEE Engineering in Medicine and Biology - Proceedings (Annu Int Conf
IEEE Eng Med Biol Proc) 1999 1/- (265)
 Publication Date: 19991201
 Publisher: IEEE
 CODEN: CEMBA   ISSN: 0589-1019   ISBN: 0780356756; 9780780356757
 Document Type: Conference Paper; Conference Proceeding   Record Type: Abstract
 Treatment: T; (Theoretical)
 Language: English   Summary Language: English
 Number of References:

5
 Descriptors: Algorithms; Computational methods; Correlation methods; Fetal monitoring; Waveform analysis;
* Electrocardiography
 Identifiers:

23/3,K/140 (Item 5 from file: 8)
0014131485   E.I. COMPENDEX No: 1998344270056
Analysis of multi-lead QT dispersion by means of an algorithm implemented on labview

Sahinoglu, Z.; Reisman, S.; Rockland, R.
 Corresp. Author/Affil: Sahinoglu, Z.: New Jersey Inst of Technology, Newark, United States
 Conference Title: Proceedings of the 1998 24th IEEE Annual Northeast Bioengineering Conference
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